

centibus; antheris linearibus, sagittatis; leguminibus valde compressis, 3.5–6 cm. longis, 4 mm. latis, glabris, adscendentibus, pedunculis 10–18 mm. longis, cella quave saepius seminibus 8 vel ultra donata; seminibus orbicularibus, pallide brunneis, late alatis, totis 4 mm., parte centrali 2 mm. latis.¹

The type locality of this species is in Maravillas Canyon of Brewster County, Texas, about fifty miles south of Marathon and four miles northeast of Black Gap, at an elevation of 2500 feet. This species is distinct in that only 2 petals develop ampliate blades. It differs from other species of West Texas in that its leaves are not clasping. Of these species its closest relationship seem to be with *S. platycarpus* A. Gray.

THE VARIATIONS OF BRACHYELYTRUM ERECTUM

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IN eastern North America, *Brachyelytrum erectum* (Schreb.) Beauv. exhibits two well-defined geographic tendencies; the northern plants are characterized by having glabrous or scabrous lemmas, while the southern plants have strongly hispid lemmas. These variations may be distinguished as follows:

- Lemmas strongly hispid, the hairs 0.2 to 0.6 mm. long. . . . *B. erectum* (typical).
 Lemmas glabrous or scabrous, with hairs 0.02 to 0.15 mm. long
 or less. *B. erectum* var. *septentrionale*.

BRACHYELYTRUM ERECTUM (Schreb.) Beauv., Ess. Agrost. 155 (1812). *Muhlenbergia erecta* Schreb. in Spreng., Mém. Acad. St. Pétersb. 2: 287 (1807–08). ? *Dilepyrum aristosum* Michx., Fl. Bor.-Amer. 1: 40 (1803). *Brachyelytrum aristatum* (Pers.) Roem & Schult. var. *Engelmanni* A. Gray, Gray's Man. ed. 5. 614 (1867). *Brachyelytrum aristosum* (Michx.) Trel. var. *glabratum* Vasey in Millsp., West Va. Agri. Expt. Sta. Bull. 24: 469 (1892). *Dilepyrum erectum* (Schreb.) Farwell, Amer. Midl. Nat. 8: 33 (1922).—Massachusetts south to Georgia, west to Louisiana and southern Wisconsin. Hitchcock states that the type of *Muhlenbergia erecta* Schreb. was collected in Georgia and Carolina.² The southern plants may therefore be considered the typical variety.

B. ERECTUM (Schreb.) Beauv., var. **septentrionale** var. nov., lemmatibus glabris vel scaberulis. Growing in rich soil in open

¹ I am indebted to Dr. Leon Croizat for aid in the preparation of the Latin description.

² Hitchcock A. S. Man. Grass. U. S., 810 (1935).

woods near Horticultural Farm, Durham, Strafford County, New Hampshire, June 19, 1942, *Babel* no. 46 (TYPE in the University of Wisconsin Herbarium).—Newfoundland to Connecticut and New Jersey, and west to northern Wisconsin, following the mountains south to West Virginia.

The type of *Brachyelytrum aristosum* var. *glabratum* Vasey has hispid lemmas and so belongs to the typical variety. It was separated from the species by Vasey on the basis of its glabrous blades and sheaths, but the glabrous blades and sheaths are found in the northern variety as well as the southern. Such specimens have been seen from North Carolina (typical), West Virginia (typical), and northern Maine (var. *septentrionale*). Since the glabrous plants are found in both varieties, it seems better not to consider them as another distinct variety.

Under *Brachyelytrum aristatum* (Pers.) Roem. & Schult., Gray named a var. *Engelmanni*. This was originally described as "a Western form, with upper glume awn-pointed, nearly half the length of the palea."¹ Through the kindness of Professor Fernald, I have been able to examine a specimen from St. Louis, Missouri, labeled var. *Engelmanni* in Gray's own handwriting, and which may, therefore, be considered as representing Gray's conception of this variety. The spikelets have long-awned second glumes, half the length of the palea, thus fitting Gray's description. Upon examining a large series of specimens, however, it becomes apparent that this variation is not confined to the western part of the range, but rather is found occurring sporadically throughout the range of the species. Individuals of both varieties here recognized show this character. A large number of plants exhibit both long-awned and awnless second glumes on different spikelets of the same plant. It does not seem advisable to maintain var. *Engelmanni* as originally defined by Gray, even as a form.² The specimen has strongly hispid lemmas and, therefore, belongs with the typical variety.

I am deeply indebted to Dr. Earl Core of the University of West Virginia for his kind loan of specimens; to Mrs. Agnes

¹ Gray *Man.* ed. 5. 614 (1867).

² It is possible to interpret the present International Rules as requiring that the name var. *Engelmanni* be retained for the typical variety since Gray's plant is typical *B. erectum* as here defined. This does not seem to be a wise course to follow, for in so doing, I must designate Gray's sheet as "type" of var. *Engelmanni*. There would then be two types, one for var. *Engelmanni* and the other for *Muhlenbergia erecta* Schreb.

Chase of the Smithsonian Institution for information concerning the location of the type of var. *glabratum*; to Professor M. L. Fernald of the Gray Herbarium for his kind loan of specimens; to Mr. F. W. Hunnewell of the New England Botanical Club for his loan of herbarium material; to Mr. Orr Goodson of the Field Museum for his kindness in loaning me herbarium material including the type of var. *glabratum*.

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THE IDENTITY OF ASTER SALSUGINOSUS
RICHARDSON

ARTHUR CRONQUIST

ON page 748, Appendix 7 (first edition), of Franklin's "Narrative of a Journey to the Shores of the Polar Sea", Richardson described *Aster salsuginosus* as follows:

323. *A. salsuginosus*: caule unifloro, foliis lineari-obovatis acutis sub-integerrimis venosis, calycibus laxe imbricatis linearibus acutis disco vix duplo radio plus triplo brevioribus. (W)¹

Herbaceus. *Caules* plures ex eadem radice, dodrantaes erecti aut ascendentes firmi simplices purpurei sed pilis brevissimis sub-incanis. *Folia* sessilia lineari-obovata lanceolatae plerumque acuta, integerrima vel ad apicem dentibus raris munita, venosa, utrinque concolora, supra glabra, subtus pilis brevibus patentissimis vestita. *Flos* magnus terminalis infra quem caulis paulo incrassatus est et villosus. *Calyx* laxiusculus pilis brevibus canis obtectus, laciniis linearibus acutis, marginibus purpurascens. *Flosculi disci* calyce fere duplo longiores: *radii* triginti sesqui-unguiculares disco duplo longiores, lineares sub-emarginati. *Germina* hirta pappo simplici dentato fuscuscente discum aequante coronata.

Hab. On the Salt Plains in the Athabasca.

A few years after Richardson's publication, Drummond returned from a trip to the Rocky Mountains, bringing specimens which Hooker identified as *A. salsuginosus*. Seeds which Drummond brought back were planted in gardens, and the garden plants were used for an excellent illustration in Curtis' Botanical Magazine (16: pl. 2942. 1829). Since that time, nearly all botanists, including Asa Gray as indicated by his treatments in

¹ As stated on page 730, W "denotes the wooded country from latitude 54 degrees to 64 degrees north."